

PRINCETON UNIVERSITY OBSERVATORY
PRINCETON, NEW JERSEY

14 Prospect Avenue

April 10, 1958

Dr. Joshua Lederberg
Department of Medical Genetics
The University of Wisconsin
Madison 6, Wisconsin

Dear Dr. Lederberg:

I was much interested to read your letter of March 21 and your remarks on evolution of interstellar grains. My own feeling is that this subject is one on which we have very little definite knowledge indeed and any processes which you may suggest would, I am sure, advance the subject. The physical conditions in interstellar space are so unlike those in any laboratory experience that it is rather difficult to get a definite handle on this problem. The situation is really too complicated to make firm theoretical predictions and an experimental project has its own difficulties.


You mention fission of grains in collisions as a possible process. This is certainly a process which should be taken into account. However, on the basis of present concepts only a small fraction of collisions will have velocities in the right range to produce fracture.

Dr. John Turkevich of the Chemistry Department has an experimental program on the condensation and growth of very small particles. I am sure that he would be interested to correspond with you on these problems.

Your remarks about the possible interstellar origin of life are certainly extremely fascinating and may very well come close to the truth.

Under separate cover I am sending you some reprints of some of my papers bearing on these fields.

Very sincerely yours,


Lyman Spitzer, Jr.

LS/ajd

SPITZER, L.